REMARKS

I. INTERVIEW

Applicants wish to thank the Examiner for the telephonic interview on February 18, 2004 conducted between Examiner Patel and Applicants' representative Kristin Behrendt. The discussion of the interview focused on the key aspect of the invention recited in independent claims 1, 29, 46, and 47. (There are a total of 4 independent claims in the instant application.) For example, claims 1 and 29 are directed to a highly breathable unitary absorbent core comprising a fibrous absorbent layer having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" (emphasis added). Claims 46 and 47 recite a breathable material having a surface with a hydrophobic vapor-transmissive moisture barrier integral therewith" (emphasis added). The presently claimed unitary absorbent core having a surface with a hydrophobic vapor-transmissive moisture barrier integral therewith is "constructed by assembling the strata in a continuous manner in a series of unit operations" (¶0047). In contrast to the prior art, "[t]he strata of the unitary structure is not an assembly or laminate or preformed layers or plies which are assembled on a converting line" (¶0047).

At the conclusion of the interview, Applicants were authorized to file a response after final highlighting the specific issues of the presently claimed invention discussed during the interview and highlighted above. Applicants respectfully assert that the novel features of the unitary absorbent core are clarified by way of the interview and request that prosecution of the instant application be advanced.

Applicants respond to each of the prior art rejections raised in the Office Action dated October 21, 2003.

II. INVENTION

As set forth in claims 1 and 29, Applicants have found a highly breathable unitary absorbent core comprising a fibrous absorbent layer having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" as in

claims 1 and 29. The moisture barrier allows for the transmission of vapors but does not allow liquid materials to pass (specification ¶0018). The ability to transmit vapors and not liquids is achieved because a continuous film over the lower surface of the absorbent layer is not formed (specification ¶0061). Instead, the "vapor-transmissive moisture barrier integral with the lower surface" means that the barrier material at least partially coats at least some of the individual fibers of the absorbent layer (specification ¶0061). The absorbent layer remains vapor-transmissive because partially coating at least some of the individual fibers leaves substantially open the pore structure between the untreated fibers (specification ¶0061).

Applicants in claims 46 and 47 claim a breathable material "having a surface with a hydrophobic vapor-transmissive moisture barrier integral therewith." This breathable material is similarly vapor transmissive and imparts the same advantages as the unitary absorbent core of claims 1 and 29.

The presently claimed unitary absorbent core is desirable for use in an absorbent product. It is thinner and less expensive to manufacture than most absorbent products and allows for simple conversion into a finished product. Specifically, "the unitary structure is constructed by assembling the strata in a continuous manner in a series of unit operations which results in the production of the unitary absorbent core" (specification ¶0047). "[T]he unitary absorbent core is produced in a continuous manner using airlaid technology, where an individual forming head provides material for a single application of a froth or foam which produces the vapor-transmissive moisture barrier, and may include compression and calendering and drying operations" (specification ¶0047). In contrast to the prior art, "[t]he strata of the unitary structure is not an assembly or laminate of preformed layers or plies which are assembled on a converting line" (specification ¶0047). None of the prior art references cited herein provide for the production of a unitary absorbent core as required by the process claims.

Applicants also note that none of the prior art references cited in the October 21, 2003 Office Action provide motivation to combine or modify the teachings of the prior art either explicitly, or implicitly, or in the knowledge generally available to one of ordinary skill in the art, to

produce the presently claimed invention. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (finding that a rejection based on a *prima facie* case of obviousness was improper where the combination of references taught every element of the claimed invention, but lacked a motivation to combine). For example, none of the prior art references cited provide any motivation to combine or modify the teachings therein to arrive at unitary absorbent core comprising a fibrous absorbent layer having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" as presently claimed. Accordingly, the prior art references do not render the presently claimed invention obvious.

In the outstanding Office Action, claims 1-50 stand rejected under 35 U.S.C. § 103(a) as obvious in view of the various combinations of prior art references. Each of the obviousness rejections are addressed below.

III. HOEY IN VIEW OF LARIVIERE

Claims 1-9, 24, 25, 26, 27, 28, 29, 31, 33, 34, 44, and 45 stand rejected as obvious over U.S. Patent No. 4,000,028 to Hoey ("Hoey") in view of U.S. Patent No. 6,515,195 to Lariviere ("Lariviere"). The Examiner agrees that Hoey does not disclose (1) a unitary absorbent core having a basis weight of about 75 gsm or greater, (2) an absorbent layer comprising natural fibers, synthetic fibers, or a mixture thereof, (3) an absorbent core comprising from about 5 to about 90 % by weight of super-absorbent polymer (SAP), (4) a core density of from about 0.03 to about 0.7 g/cc and 0.04 to about 0.3 g/cc, (5) a moisture barrier having a structure with fibers coated with hydrophobic material, and (6) an absorbent core comprising a microporous backsheet. The Examiner contends that Lariviere discloses each of these insufficiencies of Hoey.

Applicants respectfully traverse this rejection.

Claims 1 and 29 include "a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer," so designed to prevent liquid from flowing out of the unitary absorbent core while still allowing breathability (vapor-transmissiveness).

Hoey discloses useful absorbent materials that are an "element of the pad" (col. 12, line 4). The elements of the pad of Hoey are "a top layer of a crushed polymer latex foam bonded to either a non-woven which is bonded to an absorbent layer or bonded directly to the absorbent layer, and which in turn is bonded to a flexible, liquid impermeable bottom layer" (col. 1, lines 8-13). Figures 1-4 depict a pad having an absorbent layer that is bonded with an adhesive to a liquid-impermeable film or gauze (see, *inter alia*, Abstract, and col. 1, lines 8-20). The absorbent pad of Hoey achieves moisture impermeability by bonding a liquid impermeable film or gauze with adhesive to the absorbent layer.

Lariviere discloses an absorbent article with a cover layer described as a "moisture barrier" that substantially includes fibers coated with hydrophobic material (Lariviere, col. 4, lines 45-50). This cover layer is different than the "hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" because it "contain[s] a great number of large pores" and "is intended to take-up body fluid rapidly" (col. 4, lines 34-36). Accordingly, the moisture barrier of Lariviere "allows fluid to pass through it readily" in contrast to the claimed "hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" of the unitary absorbent core that is designed to prevent liquid transfer and at the same time impart breathability (e.g., vapor-transmissiveness).

Lariviere achieves moisture impermeability of its absorbent article by using a multi-layer structure that comprises a "barrier layer which is substantially adjacent to [a] second absorbent layer and impervious to liquid absorbed by the second absorbent layer" (col. 3, lines 2-4). The barrier layer and the cover layer "are joined along their marginal portions so as to form an enclosure or flange seal that maintains the absorbent system captive" (col. 10, lines 3-5). The "joint may be made by means of adhesives, heat-bonding, ultrasonic bonding, radio frequency sealing, mechanical crimping, and the like" (col. 10, lines 6-8).

The bonded layers of Hoey, in addition to the six features of Lariviere (at least one of which does not describe the presently claimed invention) do not provide motivation for one skilled in the art to combine the disclosures to arrive at the claimed invention. This is because Hoey

teaches achievement of moisture-impermeability by bonding a liquid impermeable film or gauze to the absorbent layer. Hoey does not teach one skilled in the art to provide a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer." The teaching of Lariviere would not have further helped a person having ordinary skill in the art to practice the claimed unitary absorbent core that imparts moisture impermeability and vapor-transmissiveness in view of Hoey because Lariviere also achieves moisture impermeability by using a multi-layer structure. The multi-layer structure of Lariviere provides a cover layer and barrier layer bonded together to form an enclosure around the absorbent system. The combination of Hoey in view of Lariviere would have resulted in a multi-layer structure likely having an enclosure around an absorbent system, and would not have resulted in the claimed unitary absorbent core having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer."

Accordingly, the rejection of claims 1-9, 24, 25, 26, 27, 28, 29, 31, 33, 34, 44, and 45 as obvious over Hoey in view of Lariviere should be withdrawn.

IV. HOEY IN VIEW OF VANGOMPEL, ET AL.

Claims 10, 11, and 12 stand rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 6,132,410 to Van Gompel, *et al.* ("Van Gompel"). The Examiner contends that while Hoey does not disclose an absorbent core having a hydrohead of 30mm or more, Van Gompel purportedly does disclose this limitation (col. 8, lines 50-60).

Applicants respectfully traverse this rejection.

As noted above claim 1 from which claims 10, 11, and 12 depend recite a unitary absorbent core having "a lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer."

By contrast, Hoey as noted above, describes an absorbent pad having a liquid-impermeable layer bonded to an absorbent layer. A person having ordinary skill in the art would

readily infer from Hoey that to develop an absorbent article with moisture impermeability, it is necessary to bond a top layer of a crushed polymer latex foam to "either a non-woven which is bonded to an absorbent layer or bonded directly to the absorbent layer, and which in turn is bonded to a flexible, liquid impermeable bottom layer" (col. 1, lines 9-14).

VanGompel discloses an absorbent article consisting of multiple parts including, *inter alia*, a backsheet that can support a hydro head of 45 cm without leakage (col. 8, lines 55-58). This absorbent article achieves improved resistance to leakage (moisture impermeability), and an improved fit (col. 2, lines 13-15) by way of the multiple parts including a liquid impermeable backsheet, a liquid permeable topsheet, a retention portion therebetween, body panels, and an expandable attachment section (col. 1, line 52 to col. 2, line 5).

Neither Hoey nor Van Gompel provide motivation for one skilled in the art to arrive at the claimed invention. Hoey teaches moisture impermeability by bonding a liquid impermeable layer to the bottom of an absorbent layer, while Van Gompel provides moisture impermeability by way of a complex, multipartite structure having, *inter alia*, a backsheet that can support a hydrohead of 45 cm without leakage. Accordingly, to achieve an absorbent article having moisture impermeability, Hoey would bond an additional layer, and Van Gompel would include a liquid impermeable backsheet as part of a complex diaper-like article so designed to create a snug fit around the body contours of the wearer. Both Hoey and Van Gompel provide different structures than the claimed unitary absorbent core having moisture impermeability. The teaching of the multiple-part structure of Van Gompel in view of Hoey would not have further helped one skilled in the art to practice the claimed unitary absorbent core having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" and wherein the unitary absorbent core has a hydrohead of 30 mm, 50 mm, or 70 mm or more, as claimed in claims 10, 11, and 12, respectively. This is because Van Gompel discloses two outer layers bonded together around an inner layer which would encase the absorbent structure of Hoey instead of achieving the claimed unitary absorbent core.

Accordingly, Hoey in view of VanGompel do not render claims 10, 11, and 12 obvious.

V. HOEY IN VIEW OF FERGUSON, ET AL.

Claims 13, 14, and 15 stand rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 4,341,217 to Ferguson, *et al.* ("Ferguson"). The Examiner contends that while Hoey does not disclose an absorbent core having a strikethrough of 0.7g or less, but that Ferguson discloses a bleed-through value of less than about 0.075g (col. 7, lines 8-12).

Applicants respectfully traverse this rejection.

Hoey, as noted above does not describe a "unitary absorbent core" as claimed in claim 1 from which claims 13-15 depend. A person having ordinary skill in the art would infer from Hoey that a moisture impermeable absorbent article must contain a liquid-impermeable layer bonded to an absorbent layer.

Ferguson discloses an absorbent core encased in a homogeneous outer wrap. The homogenous outer wrap has a top sheet which permits liquid to rapidly penetrate and a back sheet which retards liquid flow to an outer surface of the back sheet portion (col. 7, lines 13-22). Ferguson teaches that materials that have a bleed-through value "of less than about 0.075 grams are satisfactory for use as outer wraps" (emphasis added) (co. 7, lines 9-12). To achieve a moisture impermeable article having a bleed-through value as claimed, a person having ordinary skill in the art based on Ferguson would utilize an outer wrap.

Neither Hoey nor Ferguson provide motivation for one skilled in the art to combine two disclosures to arrive at the claimed invention. Hoey provides motivation to bond a liquid impermeable layer to achieve moisture impermeability, while Ferguson achieves moisture impermeability and a bleed-through value by way of an outer wrap. If anything, the teaching of Ferguson would have motivated one to encase the absorbent pad of Hoey in an outer wrap to achieve bleed-through values, and would not have provided a unitary absorbent core as claimed having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" with a strikethrough of 1.8 g, 1.2 g, or 0.7 g or less as claimed

in claims 13, 14, and 15, respectively. Accordingly, the teaching of Ferguson would not have further helped one skilled in the art to provide the unitary absorbent core in view of Hoey.

Even if Hoey and Ferguson were combined, the resulting structure would not realize the benefits of the claimed invention, for example, a unitary absorbent core having "a lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" and the claimed strikethrough values.

Accordingly, Applicants respectfully request that the examiner withdraw the rejection because Hoey in view of Ferguson do not render claims 13, 14, and 15 obvious.

VI. HOEY IN VIEW OF LASKO, *ET AL.*

Claim 16 stands rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 6,277,104 to Lasko, *et al.* ("Lasko"). The Examiner contends that Lasko discloses an absorbent core having an air permeability of $18m^3/min/m^2$ ($60ft^3/min/ft^2$) or greater (see Abstract).

Applicants respectfully traverse this rejection.

Hoey does not describe a "unitary absorbent core" having "a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" as claimed in claim 1 from which claim 16 depends. A person having ordinary skill in the art would infer from Hoey that an absorbent article must contain a liquid impermeable layer bonded to an absorbent layer to achieve moisture permeability.

Lasko discloses barrier structures having an air permeability of 18 $m^3/min/m^2$ ($60ft^3/min/ft^2$) or greater, with an absorbent structure there between (col. 4, lines 55-57). The air permeable barrier structure of Lasko is adjacent to the absorbent core (col. 6, lines 2-18; col 12, line 55), and not integral with the lower surface of the absorbent layer.

Neither Hoey nor Lasko provide motivation for one skilled in the art to combine the two disclosures to arrive at the claimed invention. Hoey teaches moisture impermeability by bonding a

liquid impermeable layer to the bottom of an absordent layer, and Lasko teaches liquid impermeability and breathability by barrier structures added adjacent to the absorbent core. There is no suggestion in Hoey to combine the absorbent pad with the barrier structure of Lasko to impart moisture impermeability and breathability (e.g., vapor-transmissiveness) as claimed in claim 16. Both Hoey and Lasko suggest additional layers and in no way provide a person having ordinary skill in the art the motivation to arrive at a unitary absorbent core having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer."

Furthermore, the teaching of Lasko would not have helped one skilled in the art to arrive at the claimed unitary absorbent core having the claimed air permeability values in view of Hoey because Lasko suggests the addition of a barrier structure adjacent to the absorbent core, not "integral therewith" as claimed.

Accordingly, Hoey in view of Lasko does not render claim 16 obvious. Applicants respectfully request the Examiner to withdraw this rejection.

VII. HOEY IN VIEW OF KEUHN, JR., *ET AL.*

Claims 17, 18, 19, and 20 stand rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 6,238,379 to Keuhn Jr., *et al.* ("Keuhn"). The Examiner contends that Hoey fails to disclose, and Keuhn discloses, an absorbent article with an absorbent core that has a water transmission rate of 3000 $g/m^2/24$ hr or greater (col. 10, lines 30-45).

Applicants respectfully traverse this rejection.

Hoey does not disclose the "unitary absorbent core" of claim 1 from which claims 17, 18, 19, and 20 depend having "a lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer." Hoey instead discloses an absorbent article having a liquid impermeable layer bonded to an absorbent layer to achieve absorbability and breathability. Therefore one having ordinary skill in the art would readily infer from Hoey that in

order to achieve absorbability and breathability, a back sheet layer must be bonded to an absorbent layer. Hoey does not provide direction to one of ordinary skill in the art to arrive at the presently claimed invention.

Keuhn discloses an absorbent article having a water transmission rate of 3000 $g/m^2/24$ hr or greater is imparted by a backsheet (col. 10, lines 30-45). In addition to the vapor permeable backsheet, the absorbent article of Keuhn includes a liquid permeable topsheet, and an absorbent body located between the backsheet and the topsheet (see Abstract). The various components of Keuhn are assembled to each other by using "adhesive, sonic bonds, thermal bonds, or combinations thereof" (col. 10, lines 19-22).

Neither Hoey nor Keuhn provide motivation for one skilled in the art to combine the two disclosures to arrive at the claimed invention. Hoey achieves moisture impermeability by bonding a liquid impermeable layer to the bottom of an absorbent layer. Similarly, Keuhn achieves moisture impermeability and water transmission values by bonding a topsheet, backsheet, and an absorbent body there between by using, *inter alia*, adhesive. Accordingly, to arrive at an absorbent article having moisture impermeability and specific water transmission values, one having skill in the art would be motivated based upon the teachings of Hoey and Keuhn to bond multiple layers together.

Furthermore, the teaching of Keuhn in view of Hoey would not have further helped one skilled in the art to arrive at the presently claimed unitary absorbent core because Keuhn bonds multiple layers together and does not suggest to one having skill in the art to modify Hoey to arrive at the claimed unitary absorbent core having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" and having a water vapor transmission rate as claimed in claims 17 to 20.

Accordingly, applicants respectfully request that the Examiner withdraw the rejection of claims 17, 18, 19, and 20 under 35 U.S.C. §103(a).

VIII. HOEY IN VIEW OF LUBNIN, *ET AL.*

Claim 36 stands rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 6,020,438 to Lubnin, *et al.* ("Lubnin"). The Examiner contends that Hoey does not disclose an emulsion polymer that includes a hydrophobicity agent, but that Lubnin satisfies this insufficiency because Lubnin discloses a supported vinyl chloride emulsion polymer and process for making the same.

Applicants respectfully traverse this rejection.

The claimed method of claim 29 from which claim 36 depends provides a "process for the production of a unitary absorbent core" having "a lower surface with a hydrophobic vapor-transmissive barrier integral with the lower surface of the absorbent layer." The process comprises "producing a fibrous absorbent layer" and "applying to the lower surface of the fibrous absorbent layer of hydrophobic material which at least partially coats some of the fibers of the lower surface of the absorbent layer" (emphasis added).

By contrast, Hoey discloses a "process for making a flexible absorbent pad comprising a top layer, an underlying layer, and a bottom film by forming a top layer of polymer foam materials. (col. 1, lines 48-64). Therefore, a person having ordinary skill in the art would readily infer from Hoey that to make an absorbent pad, a top layer of polymer foam should be formed.

Lubnin discloses an emulsion polymer and a process for making the polymer.

Neither Hoey nor Lubnin provide motivation for one of ordinary skill in the art to combine the two disclosures to arrive at the claimed process. Hoey suggests the desirability of application of a polymer to the top layer of an absorbent pad, while Lubnin discloses different types of polymers. Even if Lubnin describes additional polymers not applied in Hoey, it provides no suggestion to apply a polymer to the lower surface of a fibrous absorbent layer. Accordingly, the teaching of Lubnin would not have further helped one skilled in the art to practice the claimed method in view of Hoey.

For these reasons, applicants respectfully request that the examiner withdraw the rejection of claim 36 under 35 U.S.C. §103(a) over Hoey in view of Lubnin.

IX. HOEY IN VIEW OF CHEN, *ET AL.*

Claim 37 stands rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 6,486,379 to Chen, *et al.* ("Chen"). The Examiner contends that it would be obvious to one having skill in the art that the nonwoven fibrous absorbent layer produced by an air laid process of Chen be used in Hoey's invention to provide a stronger absorbent core.

The claimed method of claim 29 from which claim 39 depends provides a "process for producing a unitary absorbent core" having "a lower surface with a hydrophobic vapor-transmissive barrier integral with the lower surface of he absorbent layer" (emphasis added).

Hoey does not disclose such a process providing a barrier integral with the absorbent layer. Hoey instead provides a bottom liquid impermeable barrier layer bonded to an absorbent layer and a top layer of polymer foam. One having ordinary skill in the art would readily infer from Hoey that to make an absorbent pad, multiple layers plus a top layer of polymer foam should be provided.

Chen teaches combination of separately formed materials; including, for example, upper, central, lower absorbent members (col. 2, lines 1-25).

Neither Hoey nor Chan provide motivation for one skilled in the art to combine the two disclosures to arrive at the claimed invention. Hoey suggests production of an absorbent layer by bonding a bottom layer to an absorbent layer and forming a top layer of foam. Similarly, Chan provides a method for producing an absorbent article having multiple parts such as a lower absorbent part, a horizontal wicking barrier, an optional central rising part, a liquid impervious backsheet (col. 3). Both Hoey and Chan suggest production of an absorbent layer by assembly of multiple layers and in no way would provide a person having skill in the art with the suggestion to form a unitary absorbent core by (1) "producing a fibrous absorbent layer", and (2) "applying to the

lower surface of the fibrous absorbent layer a hydrophobic material which at least partially coats at least some of the fibers of the ower surface of the absorbent layer" as presently claimed.

Further, the teaching of Chan would not have further helped one skilled in the art to practice the claimed method in view of Hoey because Chan teaches a process for producing an absorbent article comprising multiple parts secured together.

Accordingly, the rejection of claim 37 over Hoey in view of Chen should be withdrawn.

X. YONG, *ET AL.*

Claims 38 and 39 stand rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No. WO 02/11655A2 Yong, *et al* ("Yong") in view of Hoey. The Examiner contends that it would be obvious to one having skill in the art to use an absorbent core comprising three or more fibrous strata of Yong in Hoey's invention to provide a stronger absorbent core.

Applicants respectfully traverse this rejection.

As noted above, the claimed method in claim 29 from which claims 38 and 39 depend provides a "process for the production of a unitary absorbent core" having "a lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" comprising "producing a fibrous absorbent layer" and "applying to the lower surface of the fibrous absorbent layer a hdrophobic material." Claim 38 recites a unitary absorbent core comprising "two or more fibrous strata" and claim 39 recites a unitary absorbent core comprising "three or more fibrous strata."

By contrast, Hoey as noted above provides a process for making an absorbent pad comprised by several layers where a polymeric foam is applied to the top layer. A person having ordinary skill in the art would readily infer form Hoey that to prepare an absorbent pad that is absorbable and breathable multiple layers are necessary with a polymeric foam applied to the top layer.

Yong teaches an absorbent article including a backsheet layer, a liquid permeable topsheet layer, and an absorbent body member which is sandwiched between the backsheet layer and topsheet layer (p. 5, lines 18-20). The absorbent body has three or more fibrous strata.

Neither Hoey nor Yong provide motivation for one skilled in the art to combine the two disclosures to arrive at the claimed invention. Hoey teaches a method of producing an absorbent pad by bonding a backsheet to an absorbent layer and bonding a top layer of polymeric foam to the absorbent layer. Yong teaches an absorbent body having three or more fibrous strata to provide an absorbent core having high-strength and low density. Hoey and Yong both teach assembly of multiple layers to impart a strong moisture impermeability article. Neither Hoey nor Yong teach assembly in a separate unit operation as part of a continuous process.

Furthermore, the teaching of Yong would not have guided one skilled in the art to practice the claimed method in view of Hoey. Yong merely adds more layers to create a strong absorbent article and provides no teaching of a "unit operation as part of a continuous process" as claimed to produce a unitary absorbent core.

Accordingly, applicants respectfully request that the Examiner withdraw the rejection of claims 38 and 39 under 35 U.S.C. §103(a) as obvious over Hoey in view of Yong.

XI. HOEY IN VIEW OF ROSLANSKY, *ET AL.*

Claims 21, 22, 23, 46, and 47 stand rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 6,371,950 to Roslansky, *et al.* ("Roslansky"). The Examiner contends that Hoey does not disclose an absorbent core that has a barrier effectiveness value of 75 mm or greater, and that Roslansky discloses a male incontinence article having an absorbent core with a barrier effectiveness value of 75mm or greater.

Applicants respectfully traverse this rejection.

Claim 1 of the present invention from which claims 21 to 23 depend recite a unitary absorbent core having "a hydrophobic vapor-transmissive moisture barrier integral therewith".

Independent claims 46 and 47 recite a "breathable, nonwoven fibrous material" or a "breathable, partially fibrous or nonfibrous nonwoven material," respectively, having a "hydrophobic vapor-transmissive moisture barrier integral therewith." In accordance with the presently claimed invention, barrier effectiveness value is calculated from the combination of hydrohead and strikethrough (specification ¶¶0212, 0213).

As noted above, Hoey does not disclose such a hydrophobic vapor-transmissive moisture barrier integral with the absorbent layer or the breathable material. Accordingly, one skilled in the art would not glean from Hoey the ability to carry out the presently claim invention.

Roslansky discloses an incontinence article having a capacity of urine of 50-500g (col. 9, lines 1-7). Roslansky does not disclose a barrier effectiveness value of 75mm or greater as noted by the Examiner.

Neither Hoey nor Roslansky provide motivation for one skilled in the art to combine the two disclosures to arrive at the claimed invention because Hoey nor Roslansky disclose a unitary absorbent core having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer." Furthermore, the teaching of Roslansky would not have guided one having skill in the art to practice the claimed method in view of Hoey because Roslansky further does not teach a barrier effectiveness value as claimed.

Therefore, applicants respectfully request withdrawal of the rejection of claims 21-23, 46 and 47 under 35 U.S.C. §103(a) over Hoey in view of Roslansky.

XII. LUBNIN IN VIEW OF PAUL, *ET AL.*

Claim 40 stands rejected under 35 U.S.C. §103(a) as obvious over Lubnin in view of U.S. Patent No. 6,503,525 to Paul, *et al.* ("Paul").

Applicants respectfully traverse this rejection. Applicants assert that the process of claim 29 from which caimd 40 depends recites a "unitary absorbent core" where a "hydrophobic material" is applied "to the lower surface of the fibrous absorbent layer".

Lubnin, as noted above discloses an emulsion polymer and a process for making the polymer.

Paul teaches separately formed materials which must be combined and adhered to form a product (col. 40, lines 42-51). Paul discloses as one of its separately formed materials, a top sheet with a basis weight of 22 grams per square meter (col. 13, lines 22-26). No where in Lubnin or Paul is suggested "a process for the production of a unitary absorbent core...having...a lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer" as set forth in claim 29, and claim 40 dependent therefrom.

Neither Lubnin nor Paul provide motivation for one skilled in the art to combine the two disclosures to arrive at the claimed invention. Lubnin discloses polymers, while Paul discloses a top sheet having a basis weight of 22 gsm. If anything, Lubnin suggests to Paul the addition of polymers for a top sheet to achieve the basis weight value. In contrast, the process of claim 40 provides a fibrous absorbent layer "having a basis weight of less than about 30 gsm" and "airlaying a fibrous stratum thereupon." Furthermore, the teaching of Paul would not provide one having skill in the art to practice the claimed method in view of Lubnin as Paul discloses separately formed materials and a top sheet, not a unitary absorbent core, having "an upper fluid receiving surface and a lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface."

For these reasons, applicants respectfully request withdrawal of the rejection of claim 40 as obvious over Lubnin in view of Paul.

XIII. HOEY IN VIEW OF ROE, *ET AL.*

Claim 48 stands rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 6,384,296 to Roe, *et al.* ("Roe"). The Examiner contends that it would be obvious to use the disposable article of Roe having a responsive system including an electrical actuator with Hoey to provide a stronger absorbent article.

Applicants respectfully traverse this rejection. Applicants provide that claim 47 from which claim 48 depends recites a "breathable, partially fibrous or non-fibrous non-woven material...having a surface with a hydrophobic vapor-transmissive moisture barrier herewith."

Applicants repeat and re-allege the arguments previously made with respect to Hoey.

Roe is not pertinent to the problem to be solved. Roe teaches a disposable article comprising a responsive system having a sensor, an electrical actuator, and a feedback control loop (col. 23, lines 42-43). The responsive system is employed as a bodily waste isolation device (col. 2, lines 13-18).

Accordingly, neither Hoey nor Roe provide motivation for one skilled in the art to combine the two disclosures to arrive at the claimed invention. Hoey provides no suggestion that a responsive system in addition to the disclosed absorbent pad would arrive at the desired nonwoven material or structure as claimed. Furthermore, the teaching of Roe would in no way help one having ordinary skill in the art to arrive at the claimed invention. Roe discloses a bodily waste isolation device that is automated with an electrical actuator and is clearly not within the scope of the art to suggest to one the desirability of arriving at the claimed invention in view of Hoey. Applicants respectfully request withdrawal of the rejection of claim 48 under 35 U.S.C. §103 over Hoey in view of Roe.

XIV. HOEY IN VIEW OF GRAEF, *ET AL.*

Claim 49 stands rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 6,525,240 to Graef, *et al.* ("Graef I").

Applicants respectfully traverse this rejection.

Claim 47 from which claim 49 depends recites "a breathable, partially fibrous or nonfibrous nonwoven material...having a hydrophobic vapor-transmissive moisture barrier integral therewith."

Applicants repeat and re-allege the arguments previously made with respect to Hoey.

Graef I teaches a unitary stratified composite that can be manufactured and delivered in web form, where the first stratum serves as a liquid acquisition stratum and the second stratum serves to withdraw liquid from the first stratum and further serves as a temporary storage stratum (see col. 16, lines 9-25, and Abstract). Accordingly, applicants respectfully request withdrawal of the rejection of claim 49 as obvious under Hoey in view of Graef I.

Neither Hoey nor Graef I provide motivation for one skilled in the art to combine two disclosures to arrive at the claimed invention. Both Hoey and Graef I disclose absorbent articles with multiple layers and do not suggest "a breathable nonwoven fibrous material" as presently claimed. Furthermore, the teaching of Graff I would not have further helped one skilled in the art to arrive at the claimed method in view of Hoey as Graff discloses multiple stratum, resulting in more layers of Hoey that may be bonded together. The bonding of multiple layers contrasts with the scope of the presently claimed invention.

Accordingly, applicants respectfully request withdrawal of the rejection of claim 49 as obvious under Hoey in view of Graef I.

XV. HOEY IN VIEW OF SHIRAYANAGI, *ET AL.*

Claim 50 stands rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent No. 5,366,792 to Shirayanagi, *et al.* ("Shirayanagi").

Applicants respectfully traverse this rejection.

Claim 47 from which claim 50 depends recites "a breathable, partially fibrous or non-fibrous non-woven material or structure... having a surface with a hydrophobic vapor-transmissive moisture barrier integral therewith" (see claim 47) "wherein the material or structure has been produced in a unitary process" (see claim 50).

Shirayana teaches coupling of layers of non-woven fabric as a unitary structure (col. 3, lines 9-11), but provides no teaching of the unitary structure having a surface with a hydrophobic vapor-transmissive moisture barrier integral therewith.

Neither Hoey nor Shiryanagi provide motivation for one skilled in the art to combine the two disclosures to arrive at the claimed invention because both disclose the desirability of coupling multiple layers together to arrive at an absorbent article. Furthermore, the teaching of Shirayanagi would not guide one of ordinary skill in the art to practice the claimed method in view of Hoey because Shirayana provides no teaching of a non woven material "wherein the amterial or structure has been produced in a unitary process" as presently claimed.

Accordingly the rejection of claim 50 as obvious under Hoey in view of Shirayanagi should be withdrawn.

XVI. HOEY IN VIEW OF GRAEF, *ET AL.*

Claim 41 stands rejected under 35 U.S.C. §103(a) as obvious over Hoey in view of U.S. Patent Application Publication No. 2002/0007169 A1 to Graef, *et al.* ("Graef II"). The Examiner contends that it would be obvious to use the fibrous stratum containing 50 % or more of eucalyptus fibers disclosed in Graef II in Hoey's invention in order to provide a stronger absorbent core.

Applicants respectfully traverse this rejection.

Claim 29 from which claim 41 depends sets forth a "process for the production of a unitary absorbent core" having "a vapor-transmissive moisture barrier integral therewith."

Hoey does not disclose such a process for the production of a unitary absorbent core" set forth in claims 29 and 41.

Graef II teaches a fibrous composite having three strata (¶ 0027), Graef II provides no teaching of the unitary structure having a surface with a hydrophobic vapor-transmissive moisture barrier integral therewith.

Neither Hoey nor Graef II provide motivation for one skilled in the art to combine two disclosures to arrive at the claimed invention. Both Hoey and Graef II disclose absorbent articles with multiple layers and do not suggest "a breathable nonwoven fibrous material" as presently claimed. Furthermore, the teaching of Graff II would not have further helped one skilled in the art to arrive at the claimed method in view of Hoey as Graff II discloses multiple stratum, resulting in more layers of Hoey that may be bonded together. The bonding of multiple layers contrasts with the scope of the presently claimed invention.

Accordingly, applicants respectfully request withdrawal of the rejection of claim 41 as obvious over Hoey in view of Graef II.

XVII. HOEY IN VIEW OF WOON

Claim 42 stands rejected under 35 U.S.C. § 103(a) as obvious over Hoey in view of U.S. Patent Application No. 2002/0019614 A1 to Woon, *et al.*, ("Woon"). The Examiner contends it would be obvious that the absorbent core comprising one or more strata which are multi-bonded with an emulsion polymer binder and thermal bio-component fiber binder of Woon be used in Hoey's invention in order to provide a stronger absorbent core.

Applicants respectfully traverse this rejection.

Claim 29 from which claim 42 depends recites a "process for the production of a unitary absorbent core" having "a vapor-transmissive moisture barrier integral therewith."

Hoes does not disclose such a process.

Woon teaches a multicomponent absorbent structure (¶ 0062), Woon provides no teaching of the absorbent structure having a surface with a hydrophobic vapor-transmissive moisture barrier integral therewith.

Neither Hoey nor Woon provide motivation for one skilled in the art to combine to two disclosures to arrive at the claimed invention because both disclose assembly of a multi-component

structure to create an absorbent article. Woon combined with Hoey would not guide one having ordinary skill in the art to practice the claimed invention because none of the multicomponents of Woon have a "hydrophobic vapor-transmissive moisture barrier integral with the lower surface" as presently claimed.

Accordingly, applicants respectfully request withdrawal of the rejection of claim 42 as obvious over Hoey in view of Woon.

CONCLUSION

Applicants respectfully request entry of the foregoing remarks and withdrawal of the rejections under §103. None of the references provide a teaching or suggestion of a highly breathable unitary absorbent core comprising a fibrous absorbent layer having a "lower surface with a hydrophobic vapor-transmissive moisture barrier integral with the lower surface of the absorbent layer." Moreover, when a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references. In this instance, all of the rejections depend upon a combination of prior art references; however, none of the references provide motivation for one having skill in the art to combine the references to arrive at the presently claimed invention. Accordingly, allowance of claims 1-50 is earnestly solicited.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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